

PROJECT NUMBER: 1503
PROJECT TITLE: Modified Smoking Materials
PROJECT LEADER: W. A. Nichols
PERIOD COVERED: November, 1988

I. LOW DENSITY ROD - BINDER APPLICATION

- A. Objective: Produce precoated filler via the batch or continuous process to support the current product and process development efforts on the low density rod program. Develop a method of pre-applying binders to the tobacco in a manner that can be scaled up to commercial scale.
- B. Results: To minimize tobacco build-up in the coating cylinder, the continuous process requires the filler be passed twice through the cylinder adding 3% pectin in each pass. Two tests were conducted at increased solution concentrations to permit the total add-on in one pass. While processing through the cylinder was feasible, resulting cigarette rod firmness of the low density rods was inadequate. These low firmness values may have been due to low filler OV (11.7%) at the maker or non-uniform pectin coating. Testing using higher OV filler is planned.

To evaluate binders as potential filler bonding agents, a binder reactivation device (1 g samples) is being assembled. This unit will be used to attain preliminary processing requirements of various binders and to evaluate reactivation of samples from alternate binder application methods.

920 lbs. of Marlboro filler for Project Tomorrow samples was coated using the continuous process. All lamina filler at various OVs is being produced to evaluate the optimum OV for cigarette fabrication.

- C. Plans: Tracer investigations will be completed and standardized testing established. Costs and specifications on a scaled-up continuous coating reel will be discussed with FMC, the supplier of the existing unit.